

WHAT IS CLAIMED IS:

1. A system comprising:

a first agent configured to generate a first signal, wherein said first signal is indicative, in a first state, that said first agent is available to participate in subsequent transactions, and wherein said first signal is indicative, in a second state, that said first agent is unavailable to participate in subsequent transactions; and

a second agent coupled to receive said first signal, wherein said second agent is configured to initiate a first transaction for which said first agent is a participant responsive to said first signal being in said first state, and wherein said second agent is configured to initiate a second transaction for which said first agent is a non-participant responsive to said first signal being in said second state.

2. The system as recited in claim 1 wherein said second agent is configured to inhibit initiating said first transaction if said first signal is in said second state.

3. The system as recited in claim 2 wherein said first agent is said participant in said first transaction if said first agent is targeted by said first transaction.

4. The system as recited in claim 2 wherein said first agent is said participant in said first transaction if said first agent includes an internal cache to be snooped in response to said first transaction.

5. The system as recited in claim 2 wherein said first agent is said participant in said first transaction if said first agent is a cache and said first transaction is cacheable.

6. The system as recited in claim 2 wherein said second agent is configured to inhibit initiating said first transaction by preventing arbitration for a bus on which said first transaction is to be transmitted.

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7. The system as recited in claim 2 wherein said second agent is configured to inhibit initiating said first transaction by transmitting an invalid command if said second agent wins an arbitration for a bus on which said first transaction is to be transmitted.

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8. The system as recited in claim 1 wherein said first agent comprises a queue configured to store transactions until the transactions are acted upon by said first agent, and wherein said first agent is configured to generate said first signal responsive to a number of free entries of said queue.

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9. The system as recited in claim 8 wherein said first agent is configured to generate said first signal in said second state responsive to 1 or fewer entries being free.

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10. The system as recited in claim 1 further comprising a third agent configured to generate a second signal indicative, in a first state, that said third agent is available to participate in subsequent transactions, and indicative, in a second state, that said third agent is unavailable to participate in subsequent transactions, and wherein said second agent is coupled to receive said second signal, and wherein said third agent is a non-participant in said second transaction, and wherein said second agent is configured to initiate said second transaction even if said second signal is in said second state.

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11. The system as recited in claim 10 wherein said second agent is configured to inhibit initiating a third transaction in which said third agent is a participant if said second signal is in said second state.

12. The system as recited in claim 1 further comprising a third agent, wherein said first agent is configured to assert said first signal in said second state if said first agent is unavailable to participate in subsequent transactions, and wherein said third agent is configured to assert said first signal in said second state if said third agent is unavailable to participate in additional transactions.

13. The system as recited in claim 12 wherein said first signal is indicative of whether or not a memory transaction is to be issued, and wherein said second transaction is an input/output transaction.

14. The system as recited in claim 12 wherein said first signal is indicative of whether or not an input/output transaction is to be issued, and wherein said second transaction is a memory transaction.

15. The system as recited in claim 1 further comprising a third agent, and wherein said first agent is configured to generate a second signal indicative, in a first state, that said first agent is available to participate in subsequent transactions and indicative, in a second state, that said first agent is available to participate in subsequent translations, and wherein said third agent is coupled to receive said second signal, and wherein said third agent is configured to initiate a third transaction in which said first agent is a non-participant even if said second signal is in said second state.

16. The system as recited in claim 15 wherein said first agent is configured to generate said first signal in said first state and to concurrently generate said second signal in said second state.

17. The system as recited in claim 1 wherein said first transaction includes an address, and wherein said second agent is configured to determine if said first agent is a participant in said first transaction by decoding at least a portion of said address.

18. An agent comprising:

a first storage location configured to store a transaction to be initiated by said
agent, and

a circuit coupled to said first storage location and coupled to receive a first signal
indicative of whether or not a second agent is available to participate in
transactions, and wherein said circuit is configured to selectively inhibit
initiation of said transaction if said first signal indicates that said second
agent is unavailable to participate in transactions, dependent on whether or
not said second agent is a participant in said transaction.

19. The agent as recited in claim 18 wherein said circuit is configured to inhibit initiating
said transaction if said second agent is a participant in said transaction.

20. The agent as recited in claim 19 wherein said circuit is configured to inhibit
arbitration for a bus to initiate said transaction responsive to said first signal indicating
that said second agent is unavailable to participate in transactions if said second agent is
said participant in said transaction.

21. The agent as recited in claim 19 wherein said circuit is configured to perform an
invalid command on a bus if said agent wins an arbitration for said bus to initiate said
transaction, responsive to said first signal indicating that said second agent is unavailable
to participate in transactions and said second agent is a participant in said transaction.

22. The agent as recited in claim 19 wherein said circuit is configured to determine that
said second agent is said participant in said transaction by decoding at least a portion of
an address of said transaction.

23. The agent as recited in claim 18 wherein said circuit is configured to initiate said transaction if said second agent is a non-participant in said transaction.

5 24. The agent as recited in claim 23 wherein said circuit is configured to determine that said second agent is a non-participant in said transaction by decoding at least a portion of an address of said transaction.

10 25. The agent as recited in claim 18 further comprising a queue including said first storage location, wherein said queue is configured to store a plurality of transactions to be initiated by said agent.

15 26. The agent as recited in claim 18 wherein said circuit is coupled to receive a second signal indicative of whether or not a third agent is available to participate in transactions, and wherein said circuit is configured to selectively inhibit initiation of said transaction if said second signal indicates that said third agent is unavailable to participate in transactions, dependent on whether or not said third agent is a participant in said transaction.

20 27. A method comprising:

receiving a first signal indicative of whether or not a first agent is available to participate in subsequent transactions; and

25 selectively inhibiting initiation of a transaction if said first signal indicates that said first agent is unable to participate in subsequent transactions, dependent on whether or not said first agent is a participant in said transaction.

28. The method as recited in claim 27 wherein said selectively inhibiting comprises:

inhibiting initiation of said transaction if said first agent is a participant in said transaction; and

initiating said transaction if said first agent is a non-participant in said transaction.

29. The method as recited in claim 28 further comprising determining if said first agent is said participant in said transaction by decoding an address of said transaction.

30. The method as recited in claim 28 wherein said first agent is said participant in said transaction if said first agent is targeted by said transaction.

31. The method as recited in claim 28 wherein said first agent is said participant in said transaction if said first agent includes an internal cache to be snooped in response to said transaction.

32. The method as recited in claim 28 wherein said first agent is said participant in said transaction if said first agent is a cache and said transaction is cacheable.

33. The method as recited in claim 28 wherein said inhibiting comprises inhibiting arbitration for a bus on which said transaction is to be initiated.

34. The method as recited in claim 28 wherein said inhibiting comprises transmitting an invalid command on a bus on which said transaction is to be initiated if an arbitration for said bus is won by a second agent to initiate said transaction.

35. The method as recited in claim 27 further comprising:

receiving a second signal indicative of whether or not a second agent is available to participate in subsequent transactions; and

selectively inhibiting initiation of said transaction if said second signal indicates that said second agent is unavailable to participate in transactions, dependent on whether or not said second agent is a participant in said transaction.

36. The method as recited in claim 35 wherein said selectively inhibiting comprises:

inhibiting initiation of said transaction if said second agent is a participant in said transaction; and

initiating said transaction if said second agent is a non-participant in said transaction.

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